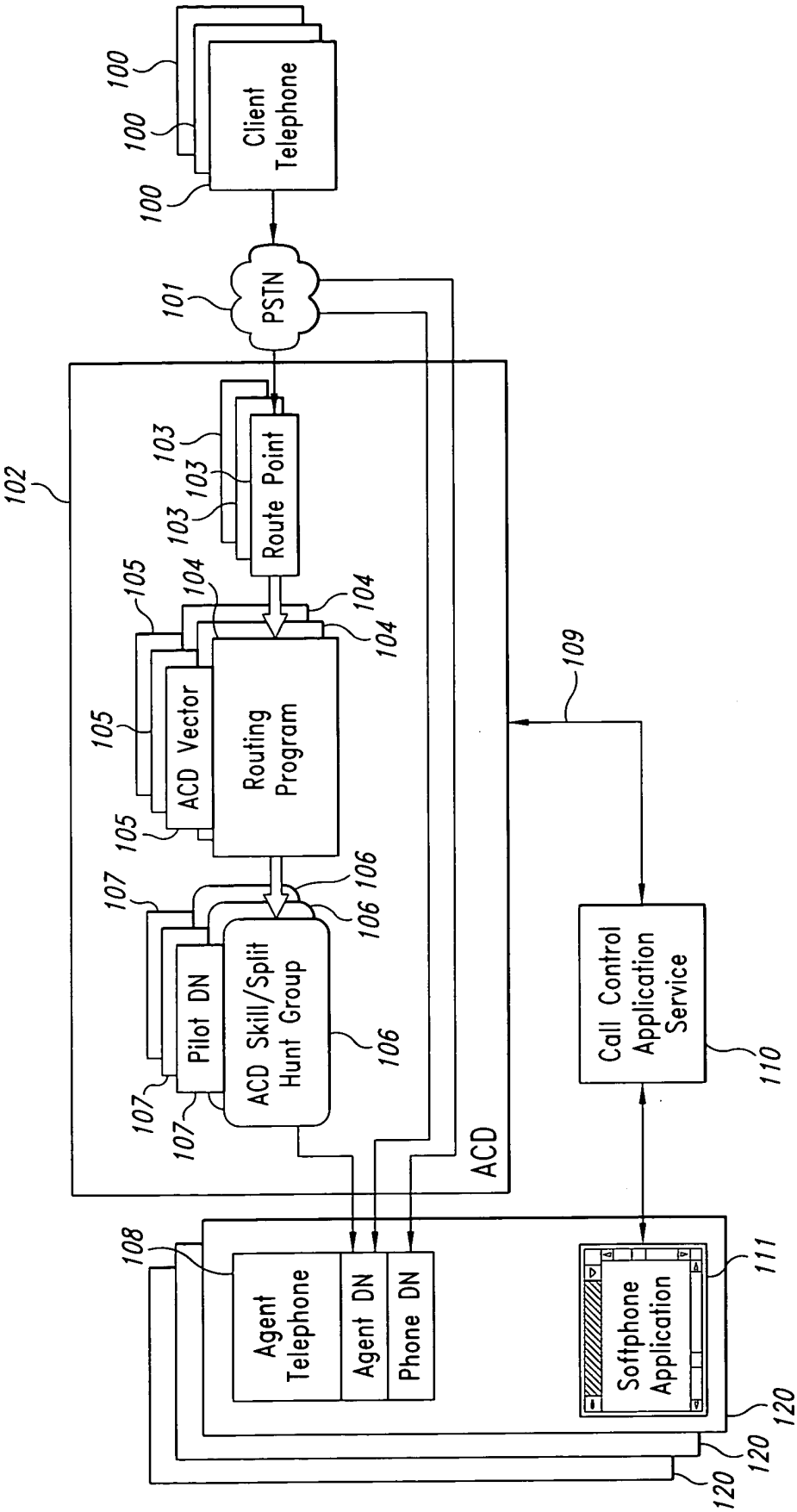

Fig. 1
(Prior Art)

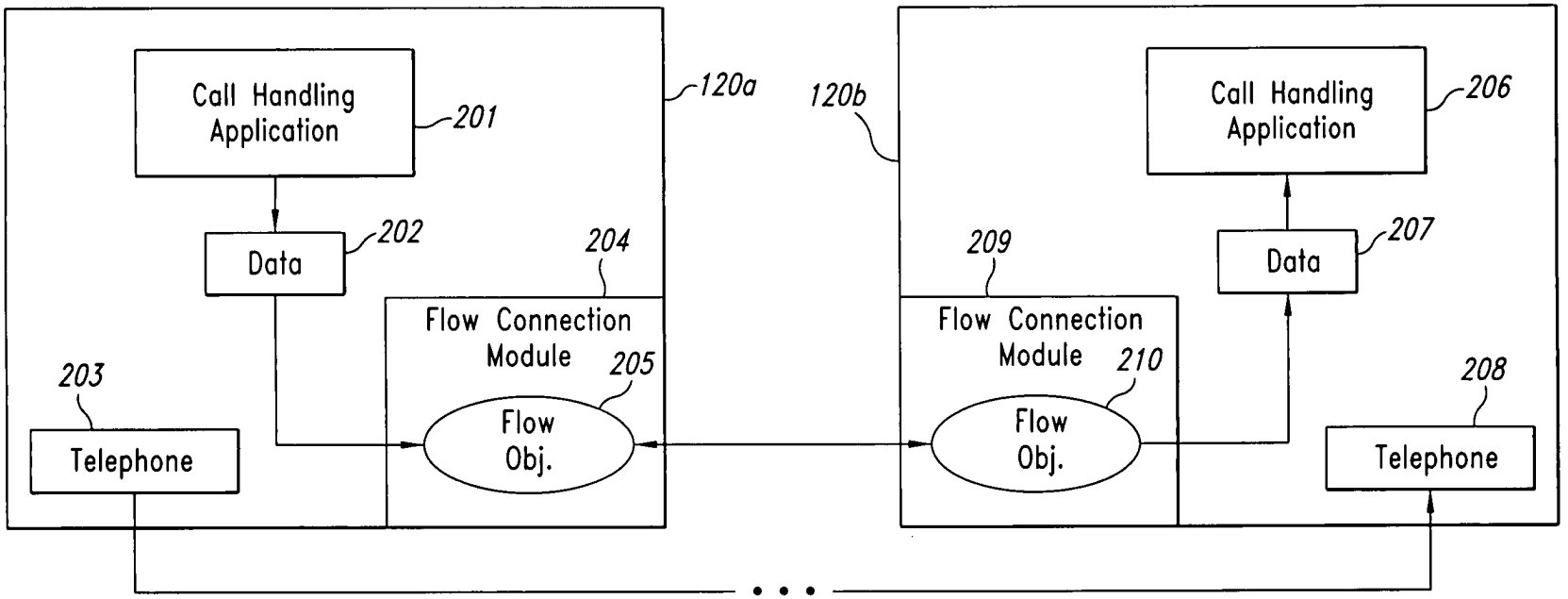
Call Handling Application
201
120a
120b
Call Handling Application
206
Data
202
204
209
Data
207
Flow Connection Module
205
Flow Connection Module
210
203
208
Flow Obj.
Flow Obj.
Telephone
Telephone

Fig. 2

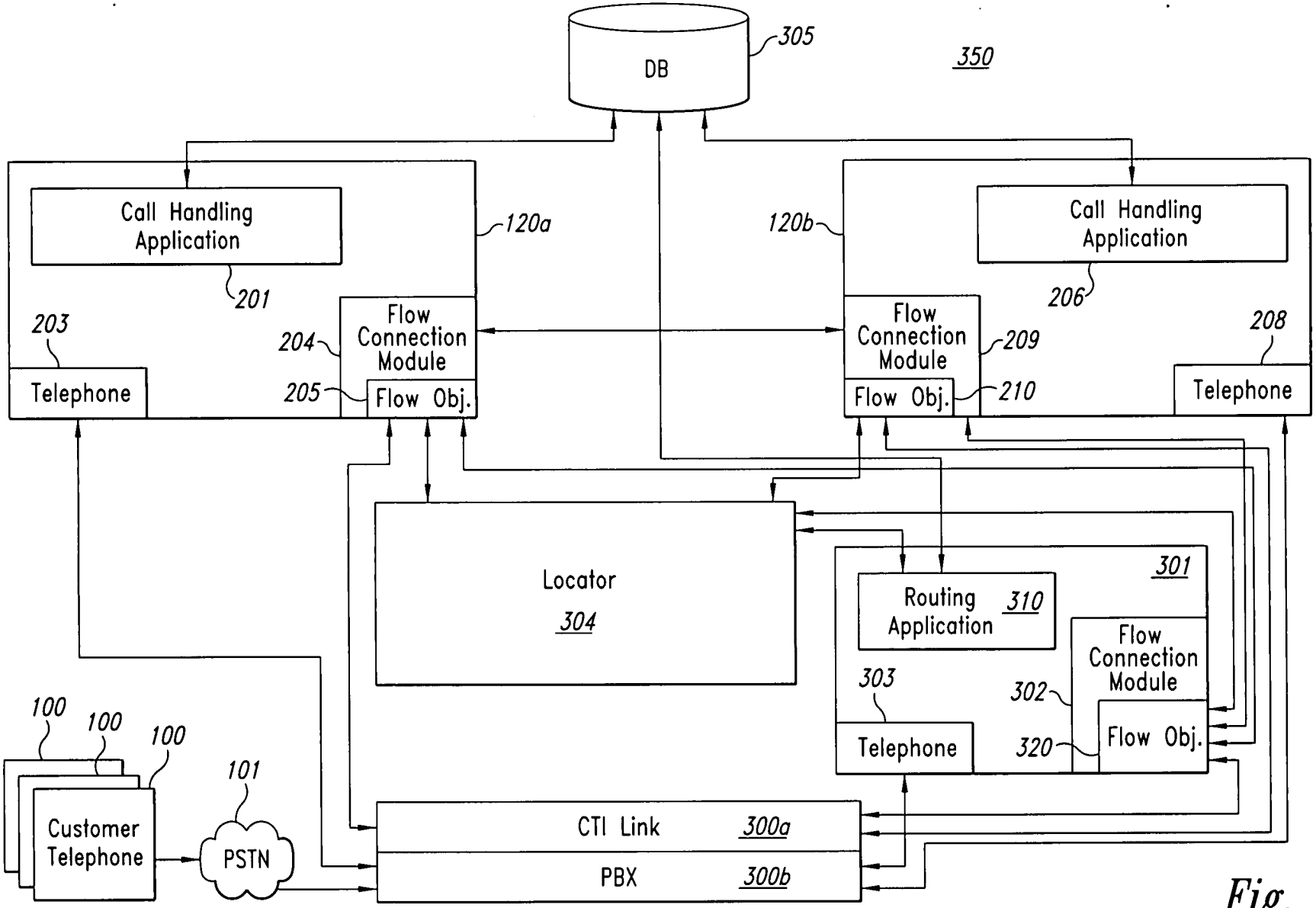
DB
305
350
Call Handling Application
201
120a
120b
Call Handling Application
206
203
Telephone
204
Flow Connection Module
205
Flow Obj.
Flow Connection Module
209
Flow Obj.
210
208
Telephone
Locator
304
301
Routing Application
310
Flow Connection Module
303
Telephone
302
320
Flow Obj.
100
100
100
Customer Telephone
101
PSTN
CTI Link
300a
PBX
300b

Fig. 3

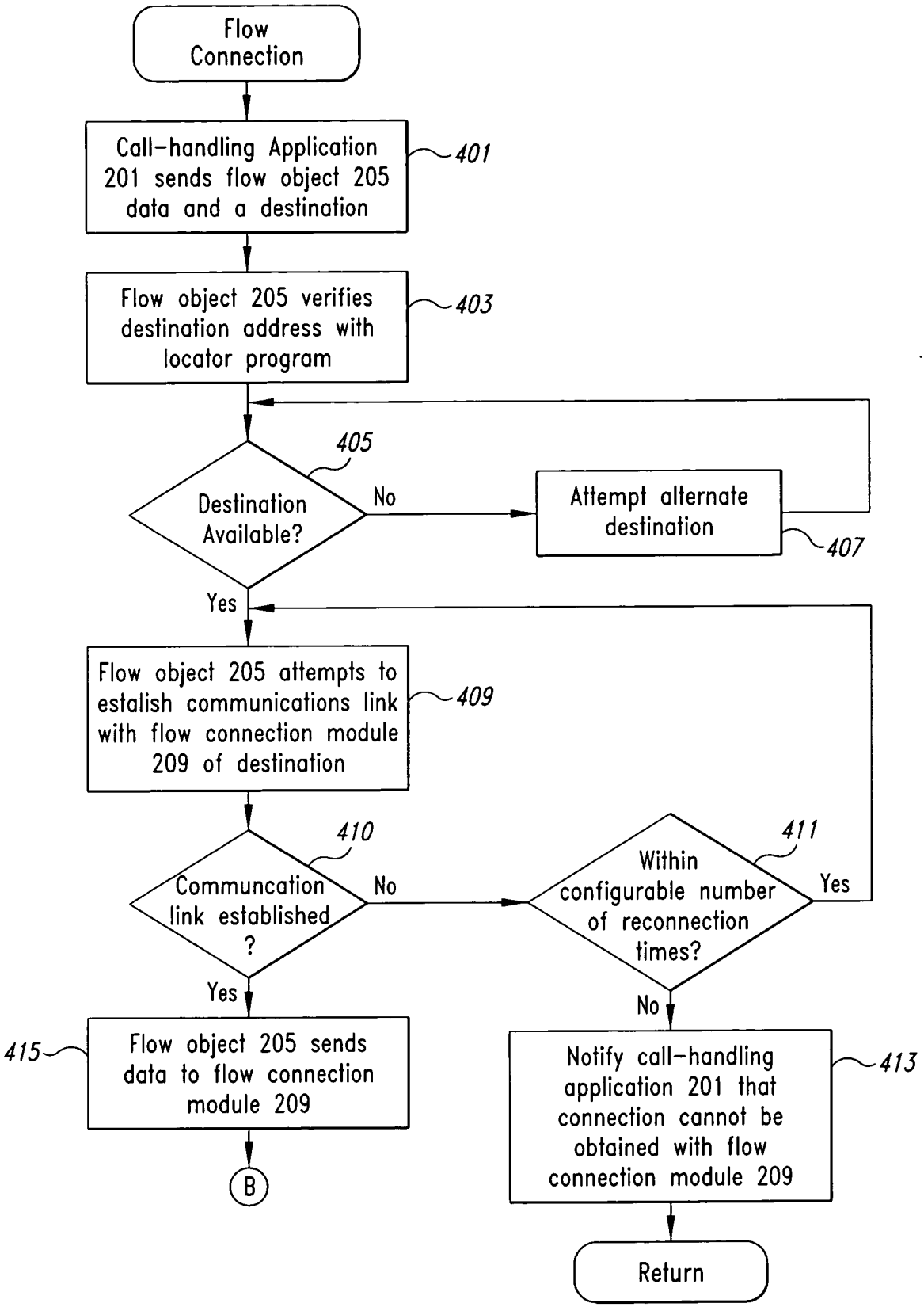
Flow Connection
Call-handling Application 201 sends flow object 205 data and a destination
401
Flow object 205 verifies destination address with locator program
403
405
Destination Available?
No
Attempt alternate destination
407
Yes
Flow object 205 attempts to estalish communications link with flow connection module 209 of destination
409
410
Communcation link established ?
No
411
Within configurable number of reconnection times?
Yes
Yes
No
415
Flow object 205 sends data to flow connection module 209
Notify call-handling application 201 that connection cannot be obtained with flow connection module 209
413
B
Return

Fig. 4A

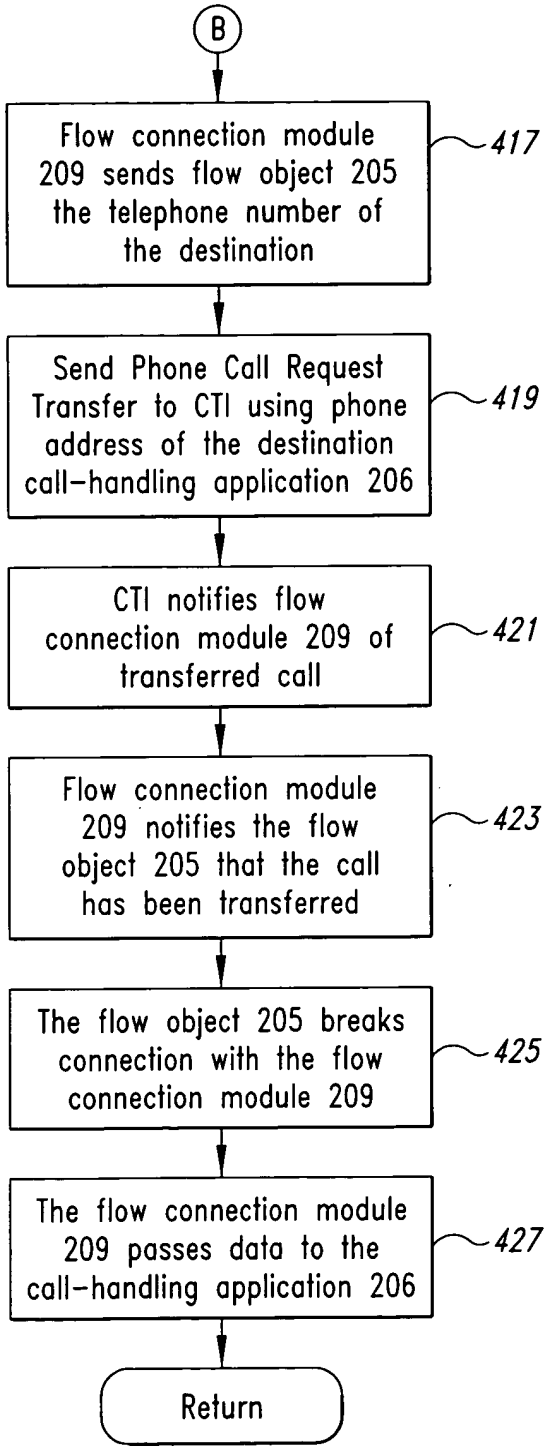
B
Flow connection module 209 sends flow object 205 the telephone number of the destination
417
Send Phone Call Request Transfer to CTI using phone address of the destination call-handling application 206
419
CTI notifies flow connection module 209 of transferred call
421
Flow connection module 209 notifies the flow object 205 that the call has been transferred
423
The flow object 205 breaks connection with the flow connection module 209
425
The flow connection module 209 passes data to the call-handling application 206
427
Return

Fig. 4B

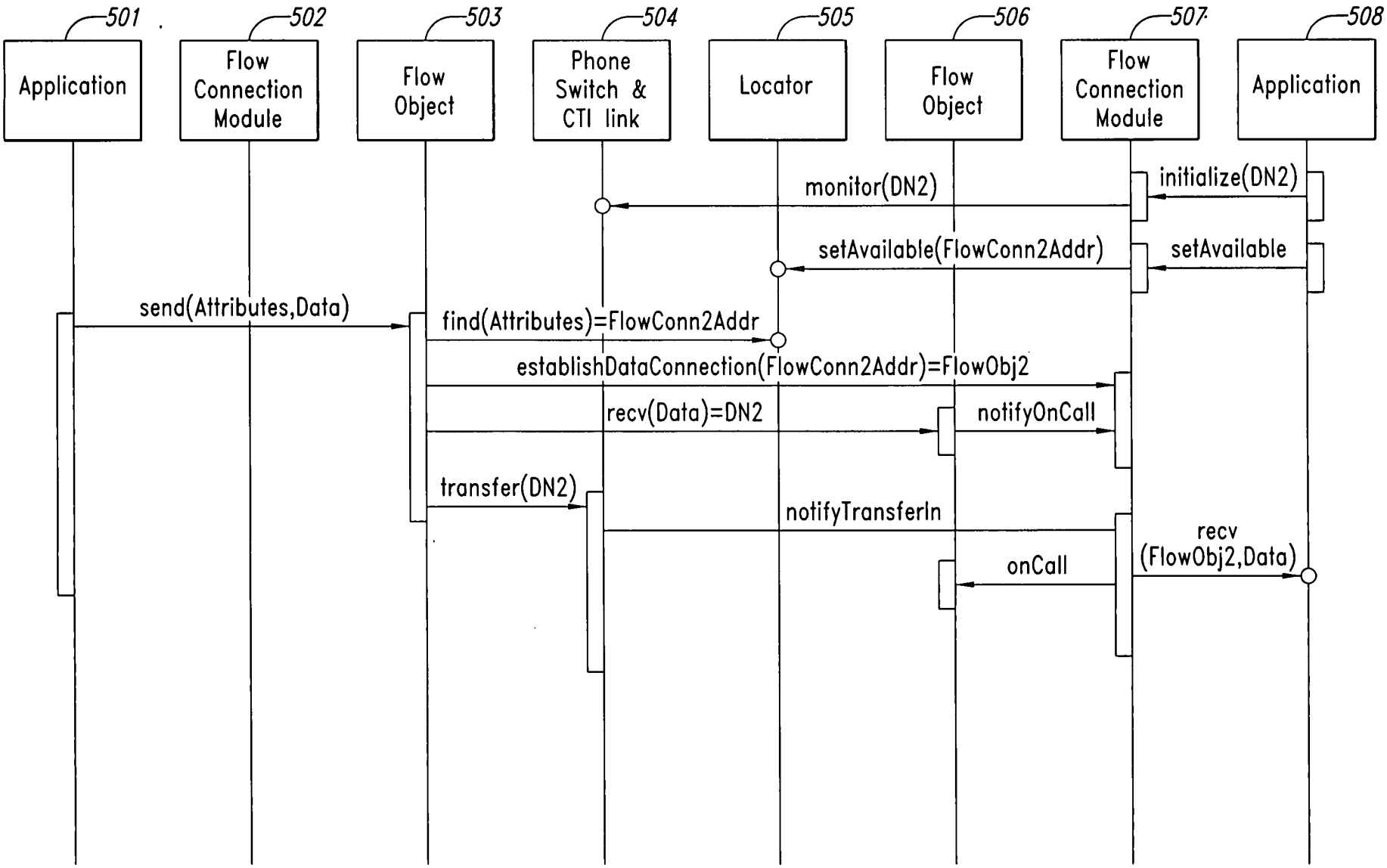
501
Application
502
Flow Connection Module
503
Flow Object
504
Phone Switch & CTI link
505
Locator
506
Flow Object
507
Flow Connection Module
508
Application
monitor(DN2)
initialize(DN2)
setAvailable(FlowConn2Addr)
setAvailable
send(Attributes,Data)
find(Attributes)=FlowConn2Addr
establishDataConnection(FlowConn2Addr)=FlowObj2
recv(Data)=DN2
notifyOnCall
transfer(DN2)
notifyTransferIn
recv (FlowObj2,Data)
onCall

Fig. 5

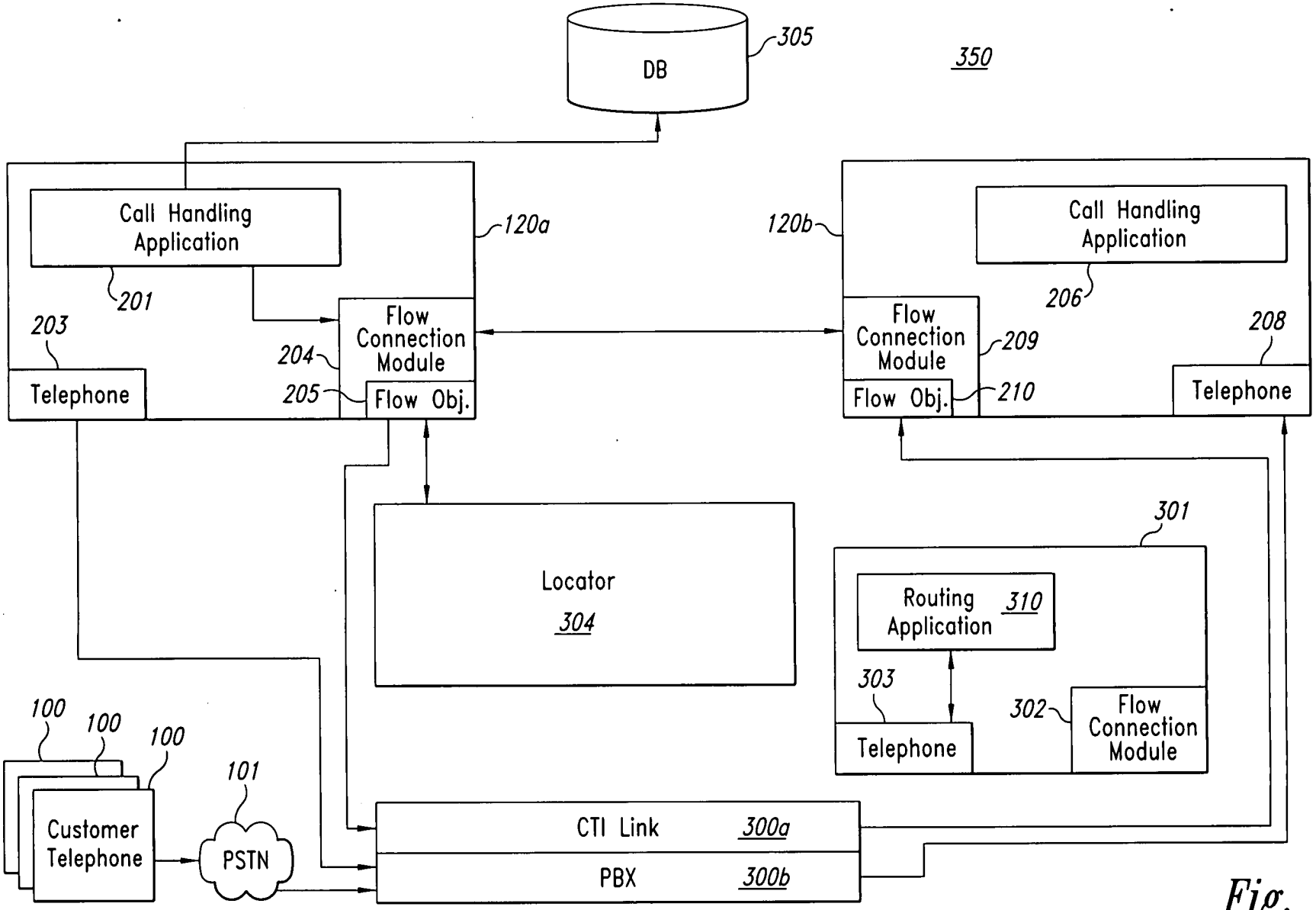
DB
305
350
Call Handling Application
201
120a
203
Telephone
204
205
Flow Connection Module
Flow Obj.
120b
Call Handling Application
206
Flow Connection Module
209
Flow Obj.
210
208
Telephone
Locator
304
301
Routing Application
310
303
Telephone
302
Flow Connection Module
100
100
100
Customer Telephone
101
PSTN
CTI Link
300a
PBX
300b

Fig. 6

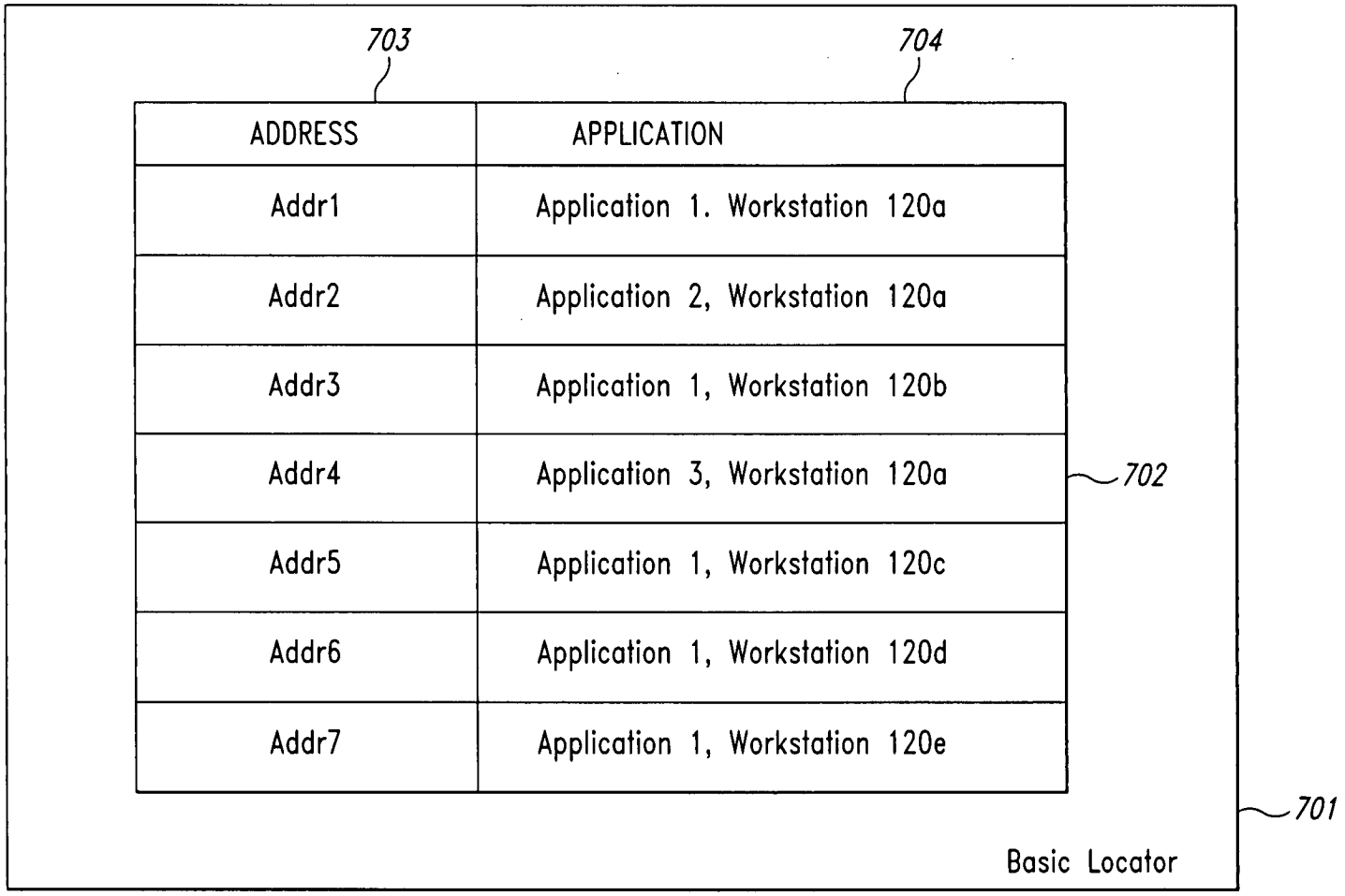
703
704
ADDRESS
APPLICATION
Addr1
Application 1. Workstation 120a
Addr2
Application 2, Workstation 120a
Addr3
Application 1, Workstation 120b
Addr4
Application 3, Workstation 120a
Addr5
Application 1, Workstation 120c
Addr6
Application 1, Workstation 120d
Addr7
Application 1, Workstation 120e
702
701
Basic Locator

Fig. 7A

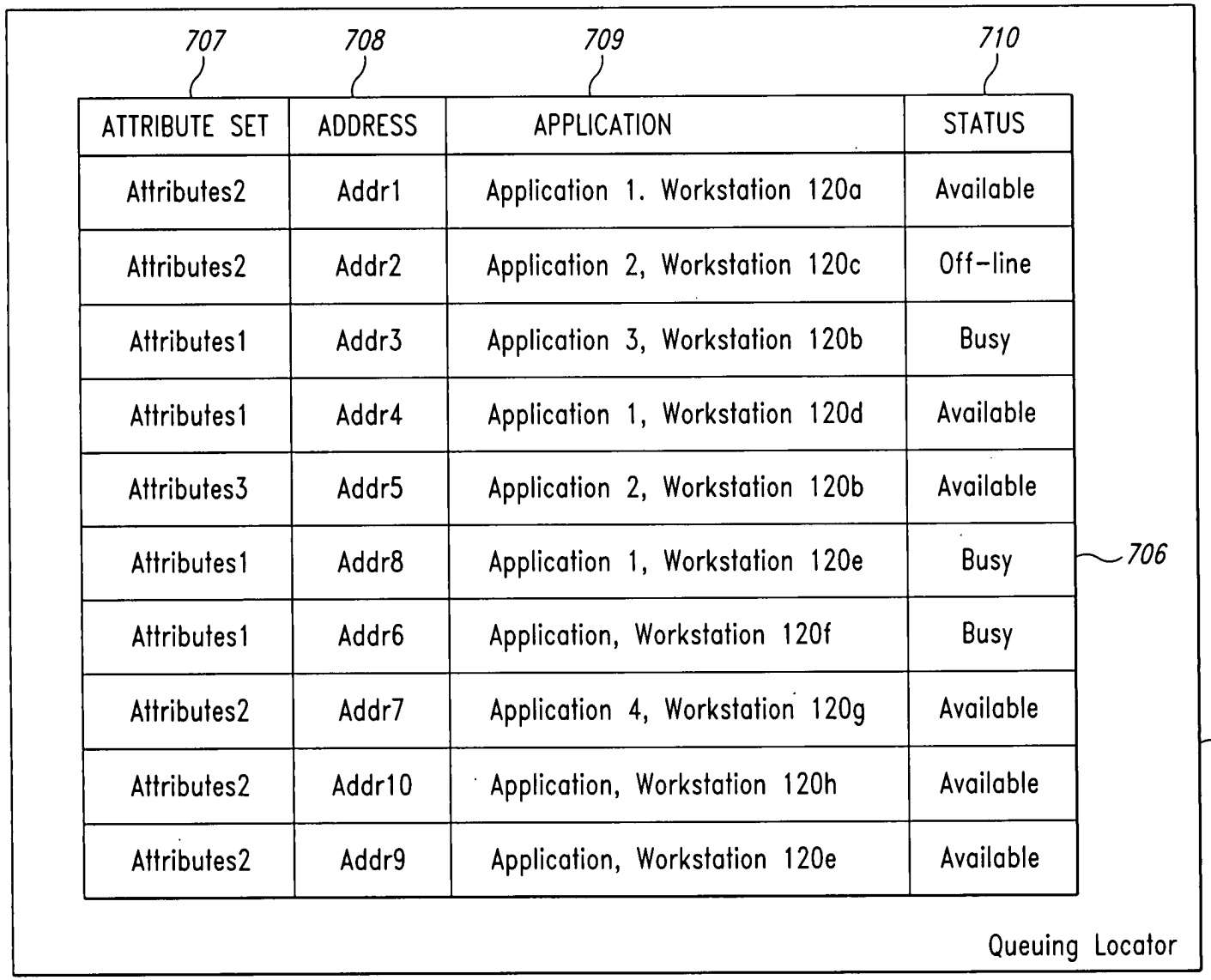
707
708
709
710
ATTRIBUTE SET
ADDRESS
APPLICATION
STATUS
Attributes2
Addr1
Application 1. Workstation 120a
Available
Attributes2
Addr2
Application 2, Workstation 120c
Off-line
Attributes1
Addr3
Application 3, Workstation 120b
Busy
Attributes1
Addr4
Application 1, Workstation 120d
Available
Attributes3
Addr5
Application 2, Workstation 120b
Available
Attributes1
Addr8
Application 1, Workstation 120e
Busy
706
Attributes1
Addr6
Application, Workstation 120f
Busy
Attributes2
Addr7
Application 4, Workstation 120g
Available
Attributes2
Addr10
Application, Workstation 120h
Available
Attributes2
Addr9
Application, Workstation 120e
Available
705
Queuing Locator

Fig. 7B

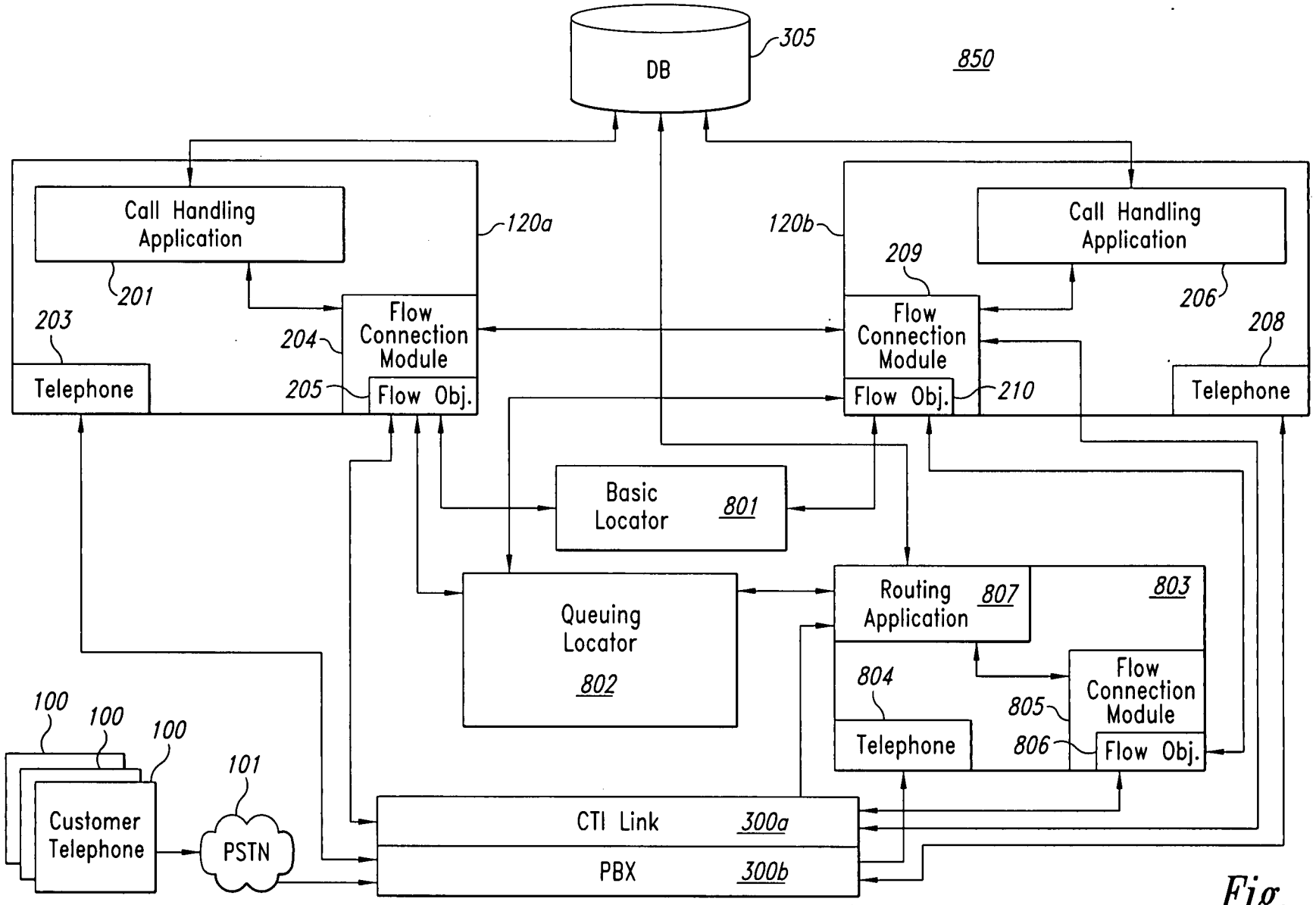
DB
305
850
Call Handling Application
201
120a
203
Telephone
204
Flow Connection Module
205
Flow Obj.
120b
209
Call Handling Application
206
208
Flow Connection Module
Flow Obj.
210
Telephone
Basic Locator
801
Queuing Locator
802
Routing Application
807
803
804
Flow Connection Module
805
Telephone
806
Flow Obj.
100
100
100
101
Customer Telephone
PSTN
CTI Link
300a
PBX
300b

Fig. 8

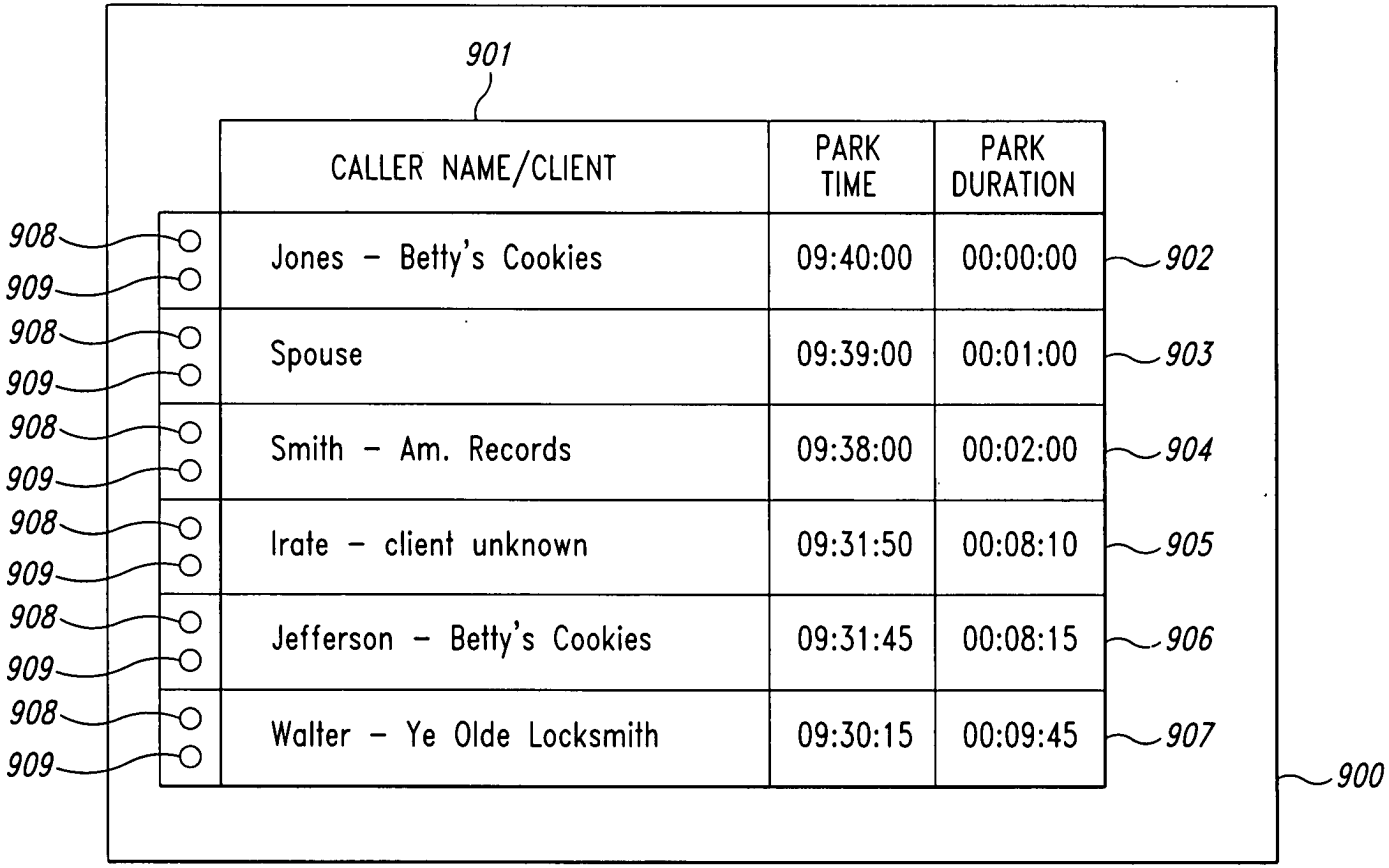
901
CALLER NAME/CLIENT
PARK TIME
PARK DURATION
Jones – Betty's Cookies
09:40:00
00:00:00
902
Spouse
09:39:00
00:01:00
903
Smith – Am. Records
09:38:00
00:02:00
904
Irate – client unknown
09:31:50
00:08:10
905
Jefferson – Betty's Cookies
09:31:45
00:08:15
906
Walter – Ye Olde Locksmith
09:30:15
00:09:45
907
900
908
909

Fig. 9

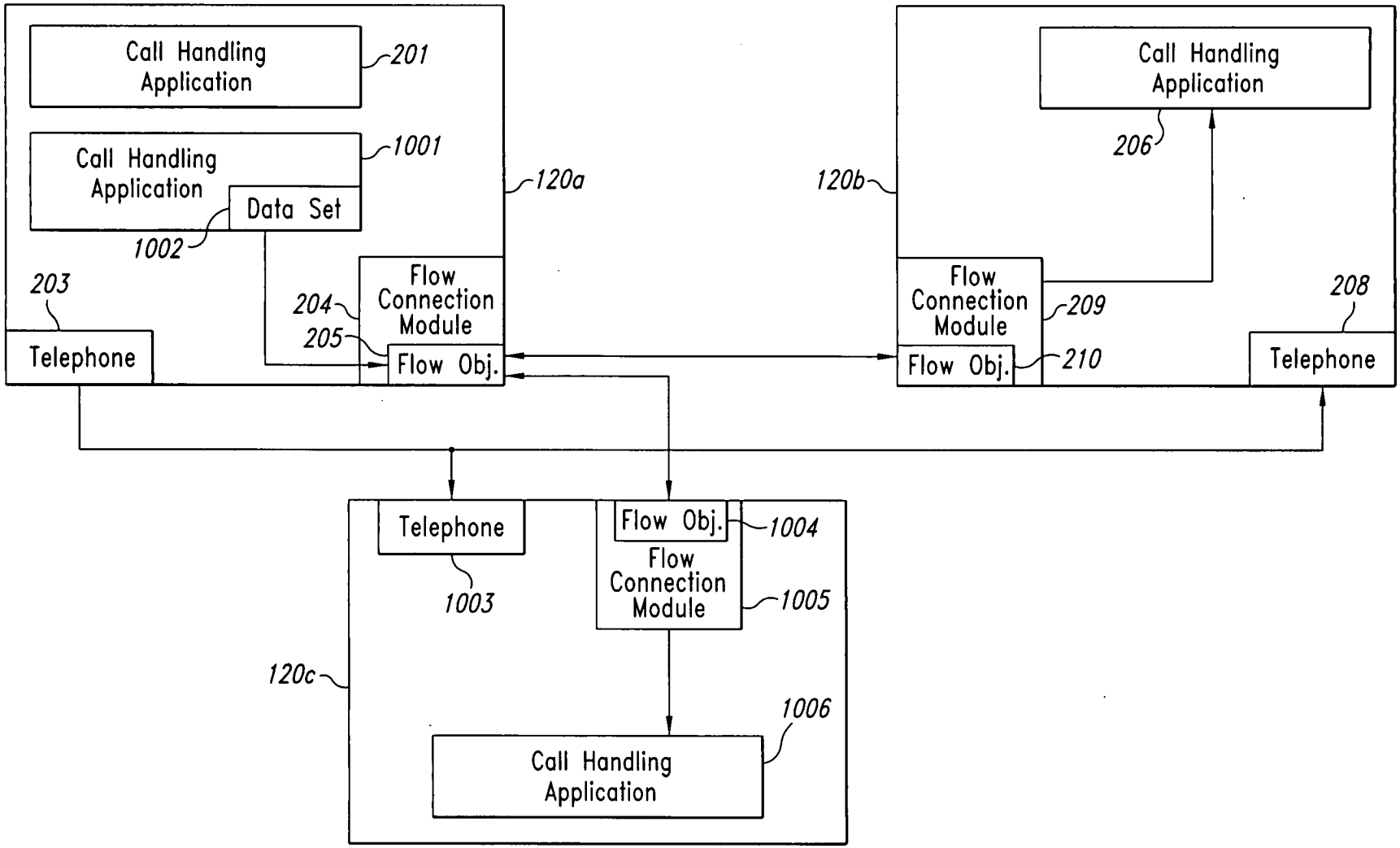
Call Handling Application
201
Call Handling Application
1001
Data Set
1002
120a
203
Telephone
204
205
Flow Connection Module
Flow Obj.
120b
Call Handling Application
206
Flow Connection Module
209
Flow Obj.
210
208
Telephone
Telephone
1003
Flow Obj.
1004
Flow Connection Module
1005
120c
1006
Call Handling Application

Fig. 10